

# TW@N

THIS WEEK @ NASA



1  
00:00:00,080 --> 00:00:02,040  
How it looks to land on Mars ...

2  
00:00:02,040 --> 00:00:03,840  
Previewing space station spacewalks ...

3  
00:00:03,840 --> 00:00:07,600  
And supplies and cargo delivered\h  
for the station crew ... a few of\h\h

4  
00:00:07,600 --> 00:00:09,920  
the stories to tell you about – This Week at NASA!

5  
00:00:12,800 --> 00:00:19,280  
Newly released high-definition videos captured by\h  
cameras onboard our Mars 2020 Perseverance rover\h\h

6  
00:00:19,280 --> 00:00:24,960  
show the final seven miles of the spacecraft's\h  
entry, descent, and landing on Mars. The uniquely\h\h

7  
00:00:24,960 --> 00:00:29,760  
amazing views, including the look down at\h  
the separation of the protective heat shield,\h\h

8  
00:00:29,760 --> 00:00:35,360  
and the upward views during deployment of the most\h  
massive parachute ever sent to another world ...  
\h

9  
00:00:35,360 --> 00:00:40,400  
“Are the closest you can get to landing on\h  
Mars without putting on a pressure suit.”

10  
00:00:41,040 --> 00:00:45,040  
While a microphone on the rover did not\h  
collect any usable data during the landing,\h\h

11  
00:00:45,040 --> 00:00:49,520

after Perseverance touched down, it did\h  
pick up mechanical sounds made by the\h\h

12

00:00:49,520 --> 00:00:57,840

rover operating on the surface, and even\h  
a few audible seconds of a Martian breeze.

13

00:00:59,520 --> 00:01:04,560

Also released with the videos and audio was the\h  
first panorama of the rover's landing location,\h\h

14

00:01:04,560 --> 00:01:09,600

taken by the two Navigation Cameras on its\h  
mast. These were all followed up three days\h\h

15

00:01:09,600 --> 00:01:13,120

later with the release of the rover's\h  
first complete, high definition look\h\h

16

00:01:13,120 --> 00:01:19,440

at its surroundings - a 360-degree panorama\h  
from its Mastcam-Z instrument. Perseverance\h\h

17

00:01:19,440 --> 00:01:24,640

will use its suite of instruments to search for\h  
signs of past microbial life, collect and leave\h\h

18

00:01:24,640 --> 00:01:29,920

samples of rock and soil for a future mission\h  
to bring back to Earth, and test technologies\h\h

19

00:01:29,920 --> 00:01:36,880

to help pave the way for future human exploration\h  
of Mars. Find out more at [nasa.gov/perseverance](https://nasa.gov/perseverance).\h

20

00:01:36,880 --> 00:01:38,800

\h  
We previewed two\h\h

21

00:01:38,800 --> 00:01:44,320

International Space Station spacewalks during  
a Feb. 24 briefing at our Johnson Space Center.

22

00:01:44,320 --> 00:01:50,640

During the first spacewalk on Feb. 28, our Kate  
Rubins and Victor Glover will prep for solar array

23

00:01:50,640 --> 00:01:56,800

upgrades later this year. Rubins will then go back  
outside on March 5 with Japan's Soichi Noguchi

24

00:01:56,800 --> 00:02:01,040

to vent ammonia from the station's thermal  
control system, along with other tasks.

25

00:02:03,280 --> 00:02:07,920

The Northrop Grumman "SS Katherine Johnson"  
Cygnus cargo spacecraft arrived at the space

26

00:02:07,920 --> 00:02:14,320

station Feb. 22, two days after launching from  
our Wallops Flight Facility. It delivered about

27

00:02:14,320 --> 00:02:19,040

8,000 pounds of scientific research, crew  
supplies, and hardware to the station. The

28

00:02:19,040 --> 00:02:24,480

spacecraft is named after late NASA mathematician,  
Katherine Johnson – one of the women featured in

29

00:02:24,480 --> 00:02:29,520

the book and movie, "Hidden Figures," who made  
significant technical contributions to some of

30

00:02:29,520 --> 00:02:36,240

NASA's earliest and most historic spaceflights.  
On Feb. 26, our NASA Headquarters building in

31

00:02:36,240 --> 00:02:41,733

Washington, D.C. was officially named in honor of Mary W. Jackson, the agency's first African American female engineer, who was also featured in "Hidden Figures." Acting NASA Administrator Steve Jurczyk led the ceremony, joined by Jackson's family and other special guests.

32

00:02:41,733 --> 00:02:47,440

American female engineer, who was also featured in "Hidden Figures." Acting NASA Administrator Steve Jurczyk led the ceremony, joined by Jackson's family and other special guests.

33

00:02:47,440 --> 00:02:52,240

Steve Jurczyk led the ceremony, joined by Jackson's family and other special guests.

34

00:02:52,240 --> 00:02:56,560

with the on-site attendance limited due to the ongoing coronavirus pandemic.

35

00:02:56,560 --> 00:02:57,360

"3-2-1 ... (applause)"

36

00:03:02,880 --> 00:03:07,120

The ceremony featured the unveiling of a building sign with Jackson's name, and several video tributes including poet Nikki Giovanni reading from her poem "Quilting the Black-Eyed Pea," which is about space and civil rights. Learn more about the contributions of Jackson.

37

00:03:07,120 --> 00:03:12,560

video tributes including poet Nikki Giovanni reading from her poem "Quilting the Black-Eyed Pea," which is about space and civil rights. Learn more about the contributions of Jackson.

38

00:03:12,560 --> 00:03:17,600

Pea," which is about space and civil rights. Learn more about the contributions of Jackson.

39

00:03:17,600 --> 00:03:22,080

Katherine Johnson and other NASA hidden and modern figures at [nasa.gov/modernfigures](https://nasa.gov/modernfigures).

40

00:03:23,680 --> 00:03:28,400

Our Parker Solar Probe captured some surprising views of Venus during a close flyby.

41

00:03:28,400 --> 00:03:35,360

in July 2020. The image shows Aphrodite Terra, the largest lowland plain on Venus.

largest highland region on the Venusian surface.\h\h

42

00:03:35,360 --> 00:03:40,240

The team is surprised because, based on the\h  
imaging device's capabilities, they only expected\h\h

43

00:03:40,240 --> 00:03:45,360

to see clouds – not clear down to the planet's\h  
surface. They are now trying to determine if\h\h

44

00:03:45,360 --> 00:03:50,640

the imager has unforeseen capabilities, which\h  
would provide new opportunities to study dust\h\h

45

00:03:50,640 --> 00:03:56,240

around the Sun and in the inner solar system. The\h  
mission focus is on the Sun, but it makes several\h\h

46

00:03:56,240 --> 00:04:01,040

passes of Venus – using the planet's gravity\h  
to help it fly closer and closer to the Sun.